SCWS 2017

Co-Design of the Global STI Ecosystem for SDGs

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Agenda 2030

• Consensus of 193 Countries

• Universal, Indivisible, Integrated and Aspirational

• Articulates the Economic, Social and Environmental dimensions.

• “No One Left Behind”
Harnessing STI to SDGs

- Technology Facilitating Mechanisms (TFM)
- Social and Cultural Context
- Diverse Sources of Knowledge
- Funding and Innovative Governance
- Innovation Ecosystems and National Roadmaps
- Social and Emerging Technologies
- Public Perception and Citizen Engagement on STI Policies

169 targets - 231 indicators
“Leaving no one behind with equality front and centre”
Overall Progress

How do experts rate progress on the transition to sustainable development

Progress on transition to sustainable development to date (% of experts)

- Poor (1+2): 9%
- Neutral: 36%
- Good (4+5): 54%

All Respondents, 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>2017</td>
<td>54</td>
</tr>
<tr>
<td>2007</td>
<td>74</td>
</tr>
<tr>
<td>2005</td>
<td>84</td>
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“Poor,” All Respondents, 2005–2017

16 March 2017 – Findings from the latest GlobeScan/SustainAbility Survey
Importance VS Progress

Gauging the perception of SDG importance vs achieved progress

Perceived importance of SDGs vs achieved progress

16 March 2017 – Findings from the latest GlobeScan/SustainAbility Survey
How organization is contributing or planning to contribute toward SDGs (% of experts)

- Developing products/services to provide solutions in line with SDGs: 51%
- Pursuing public-private partnerships / multi-stakeholder collaborations to support delivery of programs: 35%
- Applying SDGs as a lens for setting sustainability strategies/goals: 33%
- Pursuing ambitious goals for reducing negative company environmental/social impacts: 31%
- Advocating for supportive policy / regulatory frameworks: 27%
- Applying SDGs as a lens for analyzing core business risks/opportunities: 18%
- Providing technological/data solutions required to achieve goals: 16%
- Pursuing ambitious “net positive” goals: 13%
- Tracking / reporting on direct/indirect contribution to meeting priority SDGs: 13%
- Providing financing for solutions: 12%
- Increasing philanthropic contributions: 4%
- Other: 1%
- Not contributing / planning to contribute to the SDGs: 9%

Total Mentions, Corporate Respondents (n=104), 2017
Achieving the Goals of the 2030 Agenda will take between US$ 3 trillion and US$ 14 trillion in total

**ESTIMATED ANNUAL FINANCING NEEDS FOR SELECTED SUSTAINABLE DEVELOPMENT GOALS**

(Billions of dollars)

- **Social development**: 195
- **Environment**: 4680
- **Energy**: 1560
- **Land and agriculture**: 300
- **Infrastructure**: 800

“Economic development can be defined as a process of social change by which the growing number of human needs, preexisting or created by change itself, are satisfied through a differentiation in the productive system generated by the introduction of technological innovations” (Furtado, 1964)
Without building endogenous capacities in new technologies, vulnerabilities cannot be reduced.

INVESTMENT IN RESEARCH AND DEVELOPMENT (R&D), AROUND 2013 AND 2004
(Percentages of GDP)

Source: ECLAC, Ciencia, tecnología e innovación en la economía digital La situación de América Latina y el Caribe, LC/G.2685(CCITIC.2/3)), Santiago, September 2016.
Global R&D Expenses: Clear US, China and Developed Country Leadership

The size of the circles reflects the relative amount of annual R&D spending by the indicated country. Note the regional grouping of countries by the color of the balls.

Fonte: Global R&D Funding Forecast, 2017, parceria CP-GIS/NEIT-UFF
International asymmetries: Global distribution of the most dynamic and knowledge intensive activities (map of complexity) - 2012
The endogenous relationship between productive structure and inequality: the economic and political basis of social determinants

Fonte: Hidalgo, Linking Economic Complexity, Institutions and Income Inequality
BRAZIL: Economic-Industrial Complex (HEIC)

Industrial Sectors

Chemical and Biotechnology industries
- Medicines
- APIs
- Vaccines
- Blood Products
- Serum and Toxins
- Reagents for Diagnosis

Mechanic, Electronic and Materials Industries
- Mechanical equipments
- Electronical equipments
- Prostheses and ortheses
- Materials

Health Services

- Hospitals
- Ambulatories
- Home care Services
- Diagnosis and Therapeutic Services

Source: Gadelha, 2003
Health Industrial Complex Executive Group - GECIS

Members:

I. Ministry of Health (coordination)
II. Ministry of Development, Industry and Foreign Trade - MDIC
III. Ministry of Planning, Budget and Management - MPOG
IV. Ministry of Finance
V. Ministry of Foreign Affairs - MRE
VI. Presidency - Casa Civil
VII. Brazilian Health Surveillance Agency - ANVISA
VIII. Oswaldo Cruz Foundation - FIOCRUZ
IX. Brazilian Development Bank - BNDES
X. National Intellectual Property Institute - INPI
XI. Institute Brazilian Agency for Industrial Development - ABDI
XII. National Institute of Metrology, Standardization and Industrial Quality - INMETRO
XIII. Studies and Projects Finance Organization - FINEP
Strengthening Industrial Policy

- Industrial and Technological Policy
- Sanitary Regulation
- International Cooperation
- Technological Support
- Public Purchases
- Commercial Policy
- Intellectual property
- Financing

Innovation for Access
In short: to implement the 2030 Agenda

• Global, regional and national governance:
  ➢ production of global public goods
  ➢ reduction of power asymmetries in the global governance of monetary, financial, trade, technological and environmental matters
  ➢ institutional cooperation and coordination within and between countries
  ➢ development of low-carbon regional production chains
• Build the SDGs into national development plans, budgets and business models.
• Measure what we collectively decide: new indicators
• Means of implementation: financing, technology, fair trade and access to information.
• Intersectoral and inter-institutional coordination and participation of all stakeholders, including business and civil society.

Adapted from ECLAC
Museums and Science Centers as Arenas and Social Advocates for Agenda 2030

- “The Challenge is to create compelling experiences on subjects of importance in ways that increasingly attract societies to view museums as engaging resources of lifelong learning”
  
  (“Science Centers for This Century”. Schiele, B. and Koster, E., ed., 1999)

- The Tokyo Protocol